

cannot be regarded as a defensive weapon, might easily have been overlooked, and the smoothness of the skin would give it a greater resemblance to the horse than any other animal.

This paper is accompanied by two plates, exhibiting the skull of the African and of the fossil Siberian rhinoceros, and a fossil horn of the latter.

*Extract of a Letter from Captain Basil Hall, R.N. F.R.S. to William Hyde Wollaston, M.D. V.P.R.S. containing Observations of a Comet seen at Valparaiso.* Read January 10, 1822. [Phil. Trans. 1822, p. 46.]

The comet described in Captain Hall's letter was visible for 33 days in the months of April and May, 1821. During the first week its nucleus was bright and distinct; but being then in the interior of the country, he did not commence observing it till the 8th of April, when its nucleus had become so indistinct as to render its measurement by the micrometer uncertain. On its first appearance, the comet appeared of a dull white, and its tail presented a dark streak between its sides, giving it the appearance of being split. On the second evening the tail subtended an angle of  $7^{\circ}$ , reaching to  $\rho$  Ceti; on the seventh the nucleus was less bright, and the tail shorter, arising, probably, from the increased distance of the comet. The tail was at first nearly at right angles to the horizon, but each succeeding night it inclined more to the south. Tables of the observations and some sketches of the appearance of this comet accompany Captain Hall's communication.

*Elements of Captain Hall's Comet.* By J. Brinkley, D.D. F.R.S. and M.R.I.A. and Andrews Professor of Astronomy in the University of Dublin. In a Letter addressed to W. H. Wollaston, M.D. V.P.R.S. Read January 10, 1822. [Phil. Trans. 1822, p. 50.]

Dr. Brinkley remarks that the comet observed by Captain Hall is interesting to astronomers on account of its small perihelion distance, for there are only three, out of 116, in M. Delambre's catalogue, that pass nearer to the sun. On the 8th of April it was distant from the earth  $1\cdot41$ , and on the 3rd of May,  $2\cdot64$ , the sun's distance from the earth being unity.

Dr. Brinkley also remarks that it is probably the same comet that was observed in 1593; it agrees with that in its small perihelion distance, and great inclination. Of that comet, the inclination was  $88^{\circ}$ , and the perihelion distance  $0\cdot089$ ; of this, the inclination is  $106^{\circ}44'$ , and its perihelion distance  $0\cdot093$ .

To the proximity of this comet to the sun, when on the north side of the ecliptic, in February and March last, before it passed its perihelion, Dr. Brinkley attributes its having escaped European observers. It was never more than a few degrees from the sun, and therefore could not have been visible. The author then points out